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Is it important to be a smart tourism destination? Public managers' understanding of destinations in the state of Paraná[1]

É importante ser um destino turístico inteligente? A compreensão dos gestores públicos dos destinos do estado do Paraná

¿Es importante ser un destino turístico inteligente? La comprensión de los gestores públicos de los destinos del estado de Paraná

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Abstract: ***The purpose*** *of this article is to analyze how tourist municipalities in the state of Paraná understand and consider the importance of the concept of smart tourism destinations (STD) for their management. The study is* ***justified*** *by the relevance of the theme for destination management, considering the importance of new technology for tourism development.* ***The originality*** *of the study is twofold: the approach to the topic of smart tourism destinations in the context of the state of Paraná and the data collection method, coming from a country (Spain) that is a reference in the studies of smart tourism destinations. With the contribution of the theoretical framework it was possible to understand the concepts that permeate the smart tourism destinations, such as tourist destinations, destination management, information and communication technologies (ICT). This understanding was the base for the analysis carried out in the article. A mixed-****method*** *approach was adopted, since the quantitative and qualitative results were analyzed and validated through the pairing with the concepts discussed in the theoretical framework. The data collection instrument was designed by the University Institute for Tourism Research, University of Alicante, Spain, and adapted to the reality of the municipalities of Paraná, aiming to cover a spectrum of responses consistent with the perceived reality, the population of the study comprised 224 municipalities, of which 76 answers were obtained.* ***As main results****, we highlight that municipalities understand the concept and its importance for management, however, none of the destinations has governmental structures*

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(regulatory frameworks), basic infrastructure or sufficient information to become, in coming years, smart tourism destinations.

Keywords: *Tourism. Smart tourism destinations. Destination management. Information and communication Technologies. Paraná-Brazil.*

Resumo: O presente artigo teve por **objetivo** analisar como os municípios turísticos do estado do Paraná compreendem e consideram a importância do conceito de destinos turísticos inteligentes (DTI) para sua gestão. O estudo **justifica-se** pela relevância do tema para o desenvolvimento de políticas para a gestão de destinos turísticos, considerando a importância das novas tecnologias para o desenvolvimento do turismo, destaca-se também a **originalidade** do estudo devido a dois aspectos: a abordagem dada ao tema destinos turísticos inteligentes em detrimento a realidade do estado do Paraná e a metodologia utilizada na coleta de dados, proveniente de um país (Espanha) que é referência nos estudos de destinos turísticos inteligentes. Com o aporte do marco teórico foi possível a compreensão dos conceitos que permeiam os destinos turísticos inteligentes, tais como destinos turísticos, gestão de destinos, tecnologias da informação e comunicação (TIC). Essa compreensão embasou as análises realizadas no artigo. **A metodologia** adotada neste artigo baseia-se em métodos qualitativos e quantitativos, uma vez que os resultados quantitativos e qualitativos foram analisados e validados através do emparelhamento com os conceitos discutidos no marco teórico. Para que os dados fossem coletados, um questionário construído pelo Instituto Universitário Investigaciones Turísticas da Universidade de Alicante-Espanha foi adaptado para a realidade dos municípios paranaenses, visando obter um espectro de respostas condizentes com a realidade vivenciada, a população total do estudo compreendeu 224 municípios, desse total, foram obtidas 76 respostas. **Como principais resultados**, é válido destacar que os municípios compreendem o conceito e entendem sua importância para a gestão, no entanto, nenhum dos destinos apresenta estruturas governamentais (marcos regulatórios), infraestrutura básica ou informações suficientes para a evolução imediata para um destino turístico inteligente.

Palavras-chave: Turismo. Destinos turísticos inteligentes. Gestão de destinos. Tecnologia da informação e comunicação. Paraná-Brasil.

Resumen: *El presente artículo tuvo por **objetivo** analizar cómo los municipios turísticos del estado de Paraná entienden y consideran la importancia del concepto de destinos turísticos inteligentes (DTI) para su gestión. El estudio se **justifica** por la relevancia del tema para el desarrollo de políticas para la gestión de destinos turísticos, considerando la importancia de las nuevas tecnologías para el desarrollo del turismo, se destaca también **la originalidad** del estudio debido a dos aspectos: el enfoque dado al tema destinos turísticos inteligentes en detrimento de la realidad del estado de Paraná y la metodología utilizada en la colecta de datos, proveniente de un país (España) que es referencia en los estudios de destinos turísticos inteligentes. Con el aporte del marco teórico fue posible entender los conceptos relacionados con los destinos turísticos inteligentes, tales como destinos turísticos, gestión de destinos y las tecnologías de la información y comunicación (TIC). Este marco teórico ha fundamentado los análisis realizadas en el artículo. **La metodología** adoptada en este artículo se basa en aspectos cualitativos y cuantitativos, ya que los resultados cuantitativos y cualitativos fueron analizados y validados a través del emparejamiento con los conceptos discutidos en el marco teórico. Para la obtención de datos, se adaptó un cuestionario construido por el Instituto Universitario Investigaciones Turísticas de la Universidad de Alicante-España a la realidad de los municipios de Paraná, buscando obtener un espectro de respuestas concordantes con la realidad percibida, la población total del estudio comprendió 224 municipios, de ese total, se obtuvieron 76 respuestas. Como **principales resultados**, es válido destacar que los municipios comprenden el concepto y entienden su importancia para la gestión, sin embargo, ninguno de los destinos presenta estructuras gubernamentales (marcos regulatorios), infraestructura básica o informaciones suficientes para la evolución inmediata hacia un destino turístico inteligente.*

Palabras-clave: *Turismo. Destinos turísticos inteligentes. Gestión de destinos. Tecnología de la información y la comunicación. Paraná-Brasil.*

1 INTRODUCTION

The development of smart tourism destinations in Brazil follows the world trend, with Spain as a notable example (Ávila-Muñoz &García-Sachez, 2013). It is important to understand what a smart tourism destination is, as well as other concepts, such as destination management and information and communication technologies (ICTs). A deep and current understanding of the concept of tourist destination is also necessary.

ICTs and smart tourism destinations are trendy (Buhalis & Amaranggana, 2013; Nam & Pardo, 2011; Buhalis & Foerste, 2015; Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016). It is understood that the interest of Brazilian research in the subject can be explored, aiming at the internationalization of research through works developed with international groups, thus creating a national theoretical framework related to destination management.

It is also worth noting that, because ICTs are closely linked to the development and management of tourist destinations (Jovicic, 2016) – not only to smart destinations – ICTs and their set of tools (social networks, big data, mobile, augmented reality, etc.) (Baggio & Del Chiappa, 2015), provide a fertile field for the dissemination and management of information, communication, promotion, and marketing of tourist destinations, among other initiatives to improve competitiveness (Ivars, Solsona-Monzonís & Giner-Sánchez, 2016).

Understanding the concept and application of ICTs in tourism is important, particularly in the case of smart tourism destinations. Considering the aspects previously highlighted, the research problems that guide this article rely on the following questions: What is the role of ICTs in the management of tourist destinations in the state of Paraná? Are the destinations in Paraná managed within the scope of smart tourism destinations? Do the municipalities of Paraná really comprehend the concept of smart tourism destinations?

When considering the public management of a destination that has information as one of its main assets (Buhalis & Amaranggana, 2013), understanding the role of ICTs allows the outline of how the subject is being addressed.

Through these guidelines, we expect to achieve the overall goal of this article, which is to analyze how the management of tourist destinations in the state of Paraná, Brazil understand the concept of smart tourism destinations. This reinforces the analytical aspect of this research, since there is no intention to indicate whether the destinations in the state are considered smart or not. The conclusions presented in this article come from an analysis of how the municipalities understand the concept and if they see the possible advantages or disadvantages of its application to tourism management.

The main theoretical framework is based on Ivars-Baidal, Solsona-Monzonís, and Giner-Sanchez' (2016) work. In addition to this perspective, the assertions of Buhalis and Amaranggana (2013) were also used. The

objective was to obtain, through the analysis of the results, data on how the concept of smart tourism destinations is understood and how it can be applied to tourist destination management.

Thus, the research applied both qualitative and quantitative methods in the collection, analysis, and validation of the data (Richardson, 2012). This was done to complement the analysis of how state municipalities understand and attach importance to the concept of smart tourism destination management.

By the conclusion of the paper, we intend to contextualize the level of understanding of smart tourism destinations by the municipalities surveyed. We also performed an analysis of how the concept of smart tourism destinations can be further operationalized in the management of tourist destinations of Paraná, considering the current panorama regarding its management elucidated by the answers.

The research presented in this article is a general overview of the understanding of the concept and the possibility of being operationalized by the municipalities. The authors of this article do not intend to criticize the application (or lack thereof) of the concept of smart tourism destination in management. The contribution of this study focuses on the elucidation of how the concept is understood by the technicians and official tourist agencies regarding the management of destinations. The research intends to provide theoretical contribution for future operationalization of the concept.

2 TOURIST DESTINATIONS

First, it is necessary to understand what a tourist destination is. It is the only way to understand the concepts and the theoretical discussions regarding smart tourism destinations and their management. The definitions and theoretical views regarding the destination are numerous (Flores & Mendes, 2014), considered as a location for the practice of tourism. It is worth considering the development stages of a destination while reflecting on the concepts that pervade it. According to Butler (1980) and Valls (2006), the following stages must be considered in the creation process of a destination: beginning, development, expansion, maturity, decline and/or obsolescence.

However, the tourist destination cannot be understood only as a place that aggregates services and attractions. Saraniemi and Kylänen (2010) propose that a tourist destination is an amalgam of concepts, in which sociology and business should be considered. With this in mind, a broader definition of tourist destination considers the "virtual image" of the destination, which is constructed in the buying process, during the trip and in the post-trip (Saraniemi & Kylänen, 2010).

Saraniemi and Kylänen's (2010) view of a tourist destination is based on attributes that have been overlooked in previous definitions of the concept. For Jovicic (2016), it is valid to embrace a multifaceted view of what is a tourist destination, since it is impossible to adopt only one theoretical view to understand such a plural concept.

The changes in this concept over the years modified the theoretical framework around the definition of tourist destination. Accompanying these changes, the perspective on tourism has shifted from a place intended for contemplation to a place wherein a complex interaction between actors occurs (Jovicic, 2016).

In relation to the multifaceted and all-embracing vision of destination, Flores and Mendes (2014) also present in their work a holistic and comprehensive view of the concept. In their study, the authors emphasize that destination is something changeable, due equally to its characteristics as well as those who perceive it (Flores & Mendes, 2014; Saraniemi & Kylänen, 2010).

The tourist destination can be perceived from several points of view and perspectives, such as the geography of evolution approached by Sanz-Ibáñez and Anton-Clavé (2014). The authors highlight that the economic vision derived from the concept of productive spaces should not be disregarded in the face of interactions, which take place in a destination. Regarding the information previously reported by the authors, it is perceived that the theoretical visions regarding a destination are distinct and multiple, but they carry at their core the plurality of interactions present in this concept.

Theorists such as Pearce (2015) go further in their assertions, suggesting the integration between concepts to compose what would consist of a tourist destination. To achieve this integration, Pearce (2015) suggests an incorporation of the geographic dimension (space and place), mode of production (structure, behavior, and actors) and dynamic dimension (structure and leadership), in an organized system that comprises the whole that is a tourist destination (Pearce, 2015).

Richards (2014) defines tourism as a "consumer of spaces", with the idea of "ization" – to transform a space according to the given activity practiced – thus, a place is characterized according to the activities that take place in it. Consequently, to the author, the tourist activity itself creates a destination or tourist space (Richards, 2014).

However, it is necessary to consider that a tourist destination is not only based on these interactions between the economy, space, people, etc. To Framke (2014, p. 105), the destination has two dimensions, and his conclusion

> [...] is that the sum of interests, activities, facilities, infrastructure, and attractions create the identity of a place – the destination. It has a static dimension – the place – and a dynamic dimension – the mix and agglomeration of agents and products/services, varying with the tourists' historically changing demand.

Thus, it may be concluded that the tourist destination goes far beyond what may simply be perceived or conceptualized. According to Barrado-Timón (2004), these assertions should not be confused, in order to better characterize the representation of each concept, differentiating the local production systems, the area (product/consumption) and the tourism product itself.

In the several theoretical discussions presented, the presence of a multivariate

view of a destination stands out. Through the understanding of the definitions discussed, it can be said that the tourist destination is a place where relations of production/ consumption occur, considering that the actors interact with the facilities (infrastructure and attractions). Furthermore, these facilities are established in a given physical and virtual space, creating a place comprised of three phases: pre-trip (virtual), during-trip (consumption), and post-trip, together making up a tourist destination that varies according to who produces and consumes it in a given space of time (Flores & Mendes, 2014; Saraniemi & Kylänen, 2010; Jovicic, 2016; Sanz-Ibáñez & Anton-Clavé, 2014; Pearce, 2015; Richards, 2014; Framke, 2014; Barrado-Timón, 2004).

2.1 Smart tourism destinations

The way the relationships take place in a destination, and travelers' attitudes, have changed in relation to travel. In a hyperconnected world in which the internet plays a key role in connections and services, tourist destinations have also changed (Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016).

Following the logic of smart cities, one can say that the smart tourism destinations are tourist places that offer services, facilities, and ways to intervene intelligently in the tourist activity, hence, improving it (Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016; Buhalis & Amaranggana, 2014; Segittur, 2015a).

In order to understand the components of a smart tourism destination, one can take into account the considerations of Gretzel, Sigala, Xiang, and Koo (2015). Moreover, the authors emphasize the importance of data in the functioning process of a smart tourism destination, keeping in mind smart tourism, construction of experiences, digital ecosystems and, finally, a smart destination.

These data are meaningful bases for the development of a smart tourism destination. Several types of data (economic, social, demographic, etc.) are generated from the interaction between tourists and the space. This generation of data creates an "environment" in which this same data can be found. According to Femenia-Serra, Celdrán-Bernabeu, and Ivars-Baidal (2016), the main characteristic related to these environments is adaptation. The authors argue that a smart tourism destination should have the ability to shape its demand (e.g. Baby Boomers, Generation X Millennials, etc.). The authors point out, however, that offering services that fit the demand is only a part of what destinations can do. Also, using new technologies, the environment can adapt to provide managers with data on their actual demand and help them to seek out new markets, producing a permanent adaptation of these environments (Femenia-Serra, Celdrán-Bernabeu & Ivars-Baidal, 2016).

The smart tourism destinations can "predict" the needs of tourists by improving their experience on the spot through offers, maps, personalized itineraries, as well as the data generated by the tourist himself (Gretzel, Werthner, Koo & Lamsfus, 2015). Additionally, these destinations are also a

type of destination in which digital media facilitates the processes of interaction destination/tourist such as social networks and the internet (ecosystems).

However, a caveat is in order. Smart cities and smart tourism destinations are different. The smart destination is driven by the tourism sector (public and private), the focus of the activities is the tourist and not the citizen. The geographic boundaries may or may not coincide with the limits of a city, the interaction with the destination begins before the trip, and the smart destination relates to a high level of competitiveness (Ávila-Muñoz & García-Sánchez, 2013).

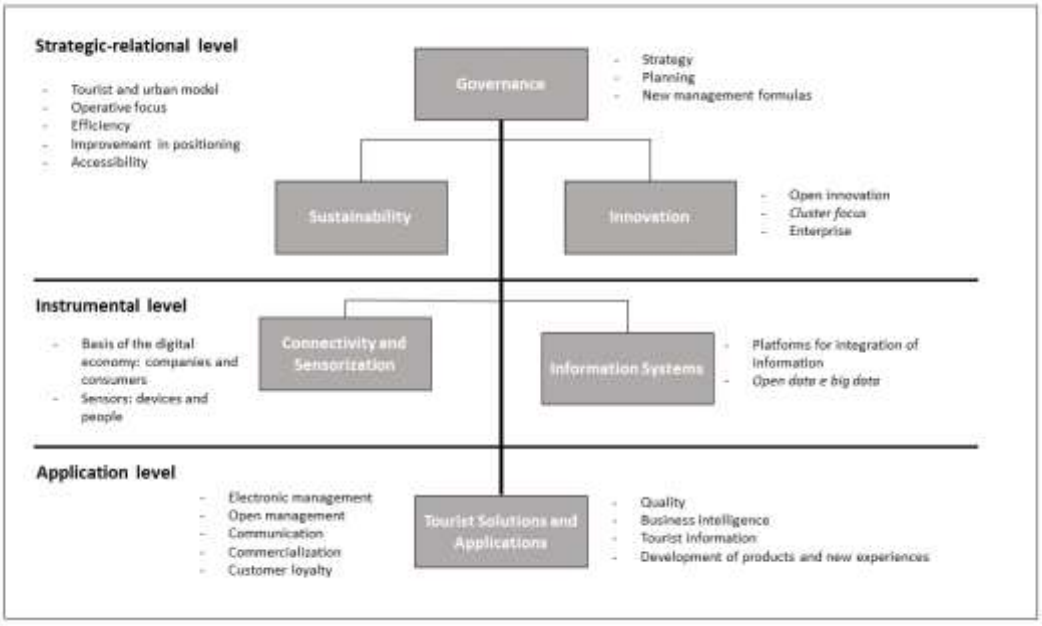
It is crucial to draw such a distinction, since a destination can comprise a whole city or part of it, enjoying the mentioned conveniences or smart solutions (Agència Valenciana Del Turismo – Invattur, 2015).

Boes, Buhalis, and Inversini (2016) consider that one of the fundamental components in the "evolution" from a tourist destination to a smart tourism destination is the development of ICTs. Ivars-Baidal, Solsona-Monzonís, and Giner-Sánchez (2016) also highlight the role of these technologies as necessary tools for the management of a smart destination.

Due to the high complexity in the relationships and the amount of data generated by the hyperconnection of tourists in a destination, it is necessary to find solutions, with the intent of collecting the data and, above all, make them useful to the managers (López de Ávila & García-Sánchez, 2013; Buhalis & Amaranggana, 2014, Blanco, 2015). It is therefore important that destinations are not restricted to just capturing the data, but also understanding the importance of working these data to their benefit.

Some areas of tourism (social, technological, and infrastructural) are important to assess how these data can benefit the destination. Ivars-Baidal, Solsona-Monzonís and Giner-Sánchez (2016) adopt these areas in their study about smart tourism destinations in Spain. The authors defined six priority areas and a total of 24 subareas (categories). The understanding of management levels in these areas also served as the basis for the analyses that were made in the methodology of this work. These areas and their subareas can be observed in Figure 1.

Figure 1 -The smart destination from a systemic perspective



Source: Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez (2016, p. 334)

From the observation of these areas, we notice that a smart tourism destination is configured upon three bases: 1) strategic-relational level, which focuses on preparation, strategies and planning; 2) instrumental level, in which the activities relating to the necessary infrastructure for the development of a smart tourism destination are implemented, and 3) application level, in which the tools and indicators such as quality, business intelligence, and tourist information facilitate the implementation of what was planned at the strategic level (Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016).

With this concept of evolution, information, and data, one of the most complete definitions in relation to smart tourism destinations is contained in the regulation AEN/CTN 178 of the *Asociación Española de Normalización y Certificación* (AENOR/SEGITTUR), which defines the smart tourism destinations as

> An innovative tourist space, accessible to all, consolidated in an infrastructure of cutting-edge technology that ensures the sustainable development of the territory. This in turn facilitates the interaction and integration of the visitor with the environment and increases the quality of their experience at the place of destination, in addition to the quality of life of the inhabitants. (Segittur, 2015a, p. 31).

Thus, a smart tourism destination can be understood as a tourist destination, which has evolved within a technological perspective, through ICTs (Buhalis & Amaranggana, 2014), remote monitoring processes, and committed official bodies (Ávila-Muñoz & García-Sánchez, 2013).

Femenia-Serra and Perea-Medina (2016) found in their study, located in the cities of Alicante, Marbella, and Málaga, that a smart tourism destination is enhanced by its development and planning in the areas of infrastructure and policies of tourism. The authors agree with Buhalis and Amaranggana

(2014) when reporting that the increase of ICTs- both on the part of the demand as well as on the part of the destinations- is a way of transforming the destination into a smart tourism destination. To analyze the three Spanish cities, the authors considered that variables such as accessibility, connection, and public-private partnerships are part of the planning and operationalization of the tourism in the city of Malaga (Femenia-Serra & Perea-Medina, 2016). By introducing these elements in their planning, the destination (Málaga) has a higher chance of becoming a smart tourism destination than the other destinations analyzed.

The destination is in line with global trends, considering themes such as "[...] innovation, technology, sustainability and accessibility [...]" Segittur, (2015b). The city of Málaga aims to meet the technological desires of tourists, facilitating their interaction with the environment and making the experiences increasingly dynamic and adaptable to the technological scenario in which the world finds itself.

2.2 Management of tourist destinations

The development of tourist destinations requires management, whether in a traditional way or through ICTs. However, the management must consider some basic rules.

According to Pearce (2016), destinations demand adoption of a model that regulates its development. Velasco-González (2014) argues for the necessity to establish a governance and tourism policy that coordinates the destination.

Taking those two statements into account, it is evident that the management of a tourist destination goes well beyond the application of laws or guidelines for the coordination of a place. Management of tourist destinations is fundamentally linked to planning. According to Manente (2008, p. 4), "destination management represents a key strategy for both mature and emerging destinations, in order to satisfy an ever-demanding consumer, ensure sustainable development and positive impacts [...]".

These statements show that destination management is the basis for a sustainable development of tourism. Velasco-Gonzáles (2014) lists in his study on tourism governance some guidelines that must be worked out so that the management tool - tourism policy - can develop. Such guidelines are paths to be followed that can lead a destination to success in governance, as highlighted by Ejarque (2005) in his book. Such guidelines are supported by the relationship with tourists, tourism companies and the tourist destination. Each guideline listed by the author has its importance within the permanent process that is destination management considering the appropriate conditions for its development (Pulido-Fernández & Pulido-Fernández, 2014).

Regarding the management processes proposed by Pearce (2014), there are four models that can be adopted in the destination management: 1) general models or systems; 2) process models; 3) role models; 4) organizational models.

When considering that management is an act led by the public authorities - most of the time - Pearce (2015, p.3) points out

that, "such a perspective gives prominence to other functions. In particular, the emphasis shifts to spatial planning, policy making, provision of public infrastructure and utilities and management of public good assets... ". This aspect can be observed mainly in Brazilian public administration.

Thus, it is noted that the management of a tourist destination is linked to laws and processes established based on the performance of a central power that is subordinated to governments, such as those of a state, city or even government departments.

Among the measures that the management must adopt to make the destination competitive, McLennan, Moyle, Ruhanen, and Ritchie (2013) emphasize that there must be effective tourism policies and measures to win over visitors.

Winning over visitors is also a key element for the success of management in which marketing (Bigné-Alcañiz, Font-Aulet & Andreu-Simó, 2000) - under the logic of the market and attraction - establishes itself as a component important for the administration, in order to conform a set of elements that will be able to attract the tourists. However, it is necessary that these elements agree with the destination management strategic plan (Buhalis, 2000).

Through the combination of policies, guidelines, templates, and marketing we have a management process based on the development of a destination, either through a government agency or not, in which tourism is the focus of the institutional policies to shape and develop a destination, through a strategic management process that is dynamic and considers all stakeholders (Sainaghi, 2006).

This dynamics in the tourist destination management led to alternative forms of management - other than traditional centralized ones. In this process, the relationship between the agents of the process in a cooperative environment is considered, based on strategic relationships, such as local productive arrangements between companies and clusters linked to the activity (Costa & Souto-Maior, 2006; Ivars-Baidal, Rodríguez-Sánchez, Vera-Rebollo & Acebal, 2014).

By observing previous assertions about destination management, it is possible to associate the great evolution of technological landscapes as a driving force for improved management. Luque-Gil, Zayas-Fernández, and Caro-Herrero (2015) call this association between technological evolution, information, technology, and networks "territorial intelligence". This intelligence is an alternative for the management of a destination through technological tools (sensors, social networks, cameras, Big Data, etc.) in which a link is created for the transformation of the administration of a "traditional" destination into the administration of a smart destination.

3 ICTs AND TOURISM

In order to understand the process of evolution from a tourist destination into a smart tourism destination, it is necessary to present the concept of ICTs. According to Buhalis and Amaranggana (2013), such technologies are one of the preponderant

factors for the evolution of a destination.

According to Rossetti and Morales (2007) and Kohn and Moraes (2007), information technologies are used in many ways, with the aim of improving processes, supporting management, and fostering the production of information-based goods, thus generating knowledge and its diffusion to what can be named the "information and digital society" (Thomaz, Biz & Gândara, 2013).

For Thomaz, Biz, and Gândara (2013), ICTs play a much larger role within a tourist destination. In view of the evolution of destination marketing, these technologies also mediate promotion-related processes. Social networks and other tools used by tourists during trips generate a large amount of data that can be used to improve the management of a destination (Thomaz, Biz & Gândara, 2013).

Such an assertion demonstrates that ICTs are more than just technological tools. They are associated with the capacity to generate knowledge and to the proper use of such knowledge.

This use occurs in many areas within a destination. The set of tools provided by ICTs is immense if compared to traditional means of communication and information. The production of content about a location has grown exponentially since social networks emerged, and this has enabled the sharing of experiences along the journey (Thomaz, Biz & Gândara, 2013).

Tourists are becoming increasingly more connected. The dissemination of information about a location is only limited by the technological tool tourists have at their disposal. Using ICTs for their own dissemination and management, destinations are consolidating and becoming well-known, a fact that follows the evolution of information exchange technology (Buhalis & Law, 2008; Thomaz, Biz & Gândara, 2013).

Given the capacity for disseminating knowledge in the technological environment, ICTs are tools that have been applied to tourism and its management over the years (Buhalis & Law, 2008).

There are several concepts that define what ICTs are, and each definition reveals the flexible characteristics of the application of this concept. The following table presents a summary (Table 1):

Table 1 - ICT concepts

AUTHOR	ICT CONCEPT
Thomas (1988)	Technology consists of searching for knowledge/solutions for areas such as industry, mechanics, among others.
Peppard (1993)	Technology consists of mechanisms that facilitate processes and information flow in the Organization and among Organizations. This encompasses information about businesses that are created, products that are used and stocked, as well as technologies that are used in the physical processes of production and service.
Runge and Earl (1998)	These scholars propose that the telecommunication network provides paths (routes) of information in which new products and services may be offered. This, in turn, redefines the concepts of service to consumers, creates new areas of innovation, and changes the distribution of the economy.
Poon (1993)	Technology is a collective term given to the latest developments in the electronic and mechanical fields (computer and communications technology), which are used for the acquisition, processing, analysis, storage, retrieval, dissemination, and application of information.

Source: Biz (2009, p. 43 in Buhalis, 2003)

Given the concepts presented, it is possible to observe that ICTs are not a "new reality". The concept has been developing over the years, which has enabled the incorporation of these technologies into tourism, from smart cities to smart destinations (Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016)

Biz (2009, p. 60) covers three phases in which ICTs are present in tourism: "[...] from CRS to GDS; new distribution channels and e-commerce; and the expansion of public tourism portals." However, it is possible to note that the development and application of the concept are already taking place in several areas of tourism, as described by Buhalis and Law (2008).

Such an application has had a differential role when it comes to tourism management processes, so a new way of using it has been established. By using social media, big data, augmented reality, sensing, and other processes, ICTs have elevated tourism to the level of digital society, transforming it and amplifying the relationships between the stakeholders (Buhalis & Law, 2008; Baggio & Del Chiappa, 2015).

Thus, it can be said that ICTs have found their space, evolved, and are now part of the context of tourism. In a society that is hyperconnected, ICTs facilitate processes, purchases, and more recently the management of destinations, providing input for tourism to keep pace with the technological progress.

4 METHOD

A mixed-methods approach was used for data collection, analysis, and validation combining quantitative and qualitative research (Creswell, 2010). Answers regarding the concept of smart tourism destinations and its applicability were collected from tourism managers in municipalities in the state of Paraná. The dimension and representativeness of these respondent municipalities were important for establishing their selection within the 14 tourist regions of the state (Vales do Iguaçu, Litoral do Paraná, Rotas do Pinhão, Norte

Pioneiro, Terra dos Pinheirais, Ecoaventuras Histórias e Sabores, Campos Gerais, Cataratas do Iguaçu e Caminhos ao Lago de Itaipu, Vale do Ivaí, Corredores das Águas, Entre Morros e Rios, Riquezas do Oeste, Lagos and Colinas, Norte do Paraná). The analysis of the data regarding these answers clarifies the applicability, understanding and importance of the concept to these destinations, thus qualifying the answers.

The profiles of the respondent municipalities were set based on the criteria presented in the state of Paraná's Tourist Hierarchy Report (2012), which is based on the State Tourism Policy - Law No. 15,973/2008. Currently, 224 municipalities are part of the 14 aforementioned tourist regions. The choice of the municipalities that responded to the survey was also based on the criteria of the Hierarchy Report (2012), since it was deemed valid to work only with the municipalities that were in line with the tourism policies and the hierarchy of the state. Responses were obtained from the municipal managers of the official tourism cabinet, thus increasing the level of reliability of the methodology.

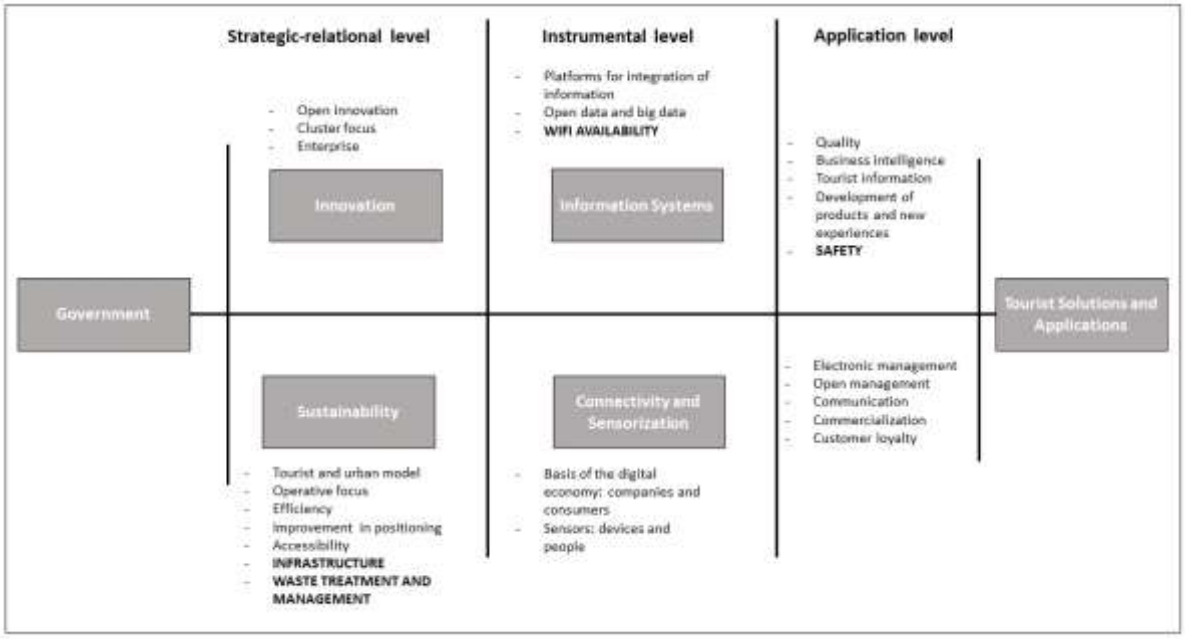
The research is exploratory-descriptive, since it presents a theoretical framework that seeks to understand the concepts of tourist destination, smart tourism destination, destination management, and ICTs. This understanding is considered the first step towards the conceptualization of the themes of any research (Gil, 2012). The goal was to subsequently describe the applicability of these concepts in day-to-day operation of tourist destinations across the state.

To collect the responses, we used the instrument developed by Ivars-Baidal, Solsona-Monzonís, and Giner-Sánchez (2016), on the management of smart tourism destinations in Spain. The questionnaire was translated and adapted by the present authors to the reality of the municipalities in the state of Paraná. The aim was to achieve a spectrum of responses that is consistent with the tourism experienced in these municipalities.

The adaptations made in the questionnaires were based on social and infrastructural issues, such as: security, sanitation, treatment and management of waste, and the availability of WiFi, since these factors were not included by Ivars-Baidal, Solsona-Monzonís, and Giner-Sánchez (2016) in their study (due to the level of development of Spanish destinations in comparison to the Brazilian context).

The coverage areas and the categories present in the questionnaire are outlined in Figure 1, in Section 2 of this article. In order to elucidate the adaptations, the perspective of the figure was changed, including the categories adapted by the authors. Therefore, the organization of the modified figure is as follows (Figure 2).

Figure 2 - The smart destination from a systemic perspective and new categories



Source: Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez (2016, p. 334) and Paraná Turismo (2016, p. 99).

Data collection was conducted online via Google Forms, using a questionnaire composed of 3 sections, subdivided into 34 questions, which enabled the identification of the following factors: assessment of the importance of the concept; current situation of the destination in relation to the concept; and use of technologies in the management of the municipality. The questionnaire was sent to the 224 municipalities that are part of the state's tourism regions.

The survey also contained an open-ended question, in which participants were asked to list five to ten actions that are necessary for the evolution of a destination into a smart tourism destination. This question allowed us to understand not only the perspective of the municipalities on the concept, but also to observe the management actions that are being proposed to face the challenges of smart tourism. This question was analyzed based on the dimensions included in the Paraná Touristic 2026 plan – Pact for a Smart Destination. This allowed the authors to verify the proposals according to the strategic priorities defined in the plan. The adapted questionnaire used a five-point Likert scale to measure the responses. We tried to keep the instrument as close as possible to the original methodology.

The survey data were tabulated through Google Forms, using Microsoft Excel and its tools as the instrument of analysis, and thus enabling the preparation of the graphs and the interpretation of the data collected. For the analysis of the data, pairing techniques proposed by Laville and Dione (1999) were used, enabling an analysis and discussion of the results present in the next section of this article.

5 ANALYSIS AND DISCUSSION OF RESULTS

From the responses provided by the tourist municipalities of the state of Paraná, we prepared the tables that follow. The tables made it possible to verify the current situation of the municipalities in relation to this new trend that imposes itself on the tourist markets, in addition to the use of ICTs, and how the destinations understand the concept of a smart tourism destination.

In total, we received 76 responses out of 224 tourist municipalities located in 14 tourism regions (Table 2), according to the state policy of regionalization and the Ministry of Tourism (Paraná Turismo, 2012).

The number of answers was considered satisfactory for analysis, since this investigation is characterized as an exploratory study. It is also necessary to consider that this is one of the first works to replicate an international model to assess the reality of the Brazilian municipalities as to their understandings of the concept of smart tourism destination.

Considering the quantitative aspects of the analysis and the total number of responses (76) in comparison to the total number of municipalities (224), there is a sampling error of about 9%. It is worth mentioning that, considering the question of hierarchical representativeness, the most relevant municipalities in terms of tourism (Araucária, Cascavel, Curitiba, Guarapuava, Londrina, Maringá, Matinhos, Paranaguá and Ponta Grossa) responded to the survey, as well as other municipalities within the five categories of tourist hierarchization of the Ministry of Tourism.

In Table 2, it is possible to observe the regions, the name of each municipality that responded to the questionnaire, their ratings, and the number of respondents with respect to the total amount that represents the region. It was deemed valid to present such data in order to qualify the answers and as a way to get to know each one of the respondents better.

Regarding the variables shown in Table 2, the classification that goes from A to E is part of the initiative by the Ministry of Tourism for the regionalization of the tourist municipalities of Brazil (Ministry of Tourism, 2015) –see Law 11,771/2008, which governs the National Policy on Tourism. This initiative aimed to foster the development of tourist public policies in Brazil, as a way to direct resources and promotional efforts for the municipalities that were better classified (Ministry of Tourism, 2015).

Table 2 - Respondent Municipalities

REGION	MUNICIPALITIES	RATING	TOTAL
Vales do Iguaçu	Cruzeiro do Iguaçu, Pranchita, Ampére, Renascença, Francisco Beltrão, Realeza, Coronel Vivida	1C; 4D; 2E	7 of 25
Litoral do Paraná	Antonina, Guaratuba, Matinhos, Paranaguá, Morretes, Pontal do Paraná	3B; 2C; 1D	6 of 7
Rotas do Pinhão	Curitiba, Colombo, Rio Negro, Tijucas do Sul, Campo Magro, Araucária, Pinhais, Lapa, São José dos Pinhais	1A; 1B; 2C; 5D	9 of 16
Norte Pioneiro	Ibaiti, Jacarezinho, Londrina, Bandeirantes, Siqueira Campos	5D	5 of 10
Terra dos Pinheirais	Prudentópolis, Fernandes Pinheiros, Bituruna, Mallet, Guarapuava	1B; 4D	5 of 10
Ecoaventuras Histórias e Sabores	Campo Mourão, Campina da Lagoa, Boa Esperança	1C; 2D	3 of 18
Campos Gerais	Jaguariaíva, Palmeira, Castro, Carambeí, Ponta Grossa	1B; 5D	5 of 10
Cataratas do Iguaçu e Caminhos ao Lago de Itaipu	Matelândia, Santa Terezinha de Itaipu, São Miguel do Iguaçu, Entre Rios do Oeste, Foz do Iguaçu, Marechal Cândido Rondon, Mercedes, Medianeira, Serranópolis do Iguaçu	1A; 4C; 1D; 3E	9 of 16
Vale do Ivaí	Godoy Moreira, Lunardelli	2E	2 of 16
Corredores das Águas	Itaguajé, Maringá, Marilena, Ivatuba, Querência do Norte, Umuarama, Nova Londrina, Cianorte, Santo Inácio, Munhoz de Melo	1B; 2C; 4D; 3E	10 of 34
Entre Morros e Rios	Mato Rico, St. Mary of the West, the Snorer	3D	3 of 13
Riquezas do Oeste	Toledo, São Pedro do Iguaçu, Cascavel, Maripá, Capitão Leônidas Marques	1B; 1C; 2D; 1E	5 of 16
Lagos e Colinas	Reserva do Iguaçu, Porto Barreiro	1D; 1E	2 of 16
North of Paraná	Ribeirão Claro, Sapopema, Sertanópolis, Rolândia, Assaí	1B; 4D	5 of 17
Total = 14 Regions	76 municipalities	2A; 9C; 13C; 41D; 13E	76 of 224

Source: The authors

From these data related to classification, it was also possible to infer which of the municipalities can claim resources for a possible evolution to the level of smart tourism destinations. The classification is part of both the program of the Ministry of Tourism and the Policy of Tourism Regionalization of the State of Paraná. The authors used this classification as a parameter of differentiation of the

municipalities and to aid in the analysis and description of the respondents.

The regions presented in Table 2 are part of a state regionalization policy of the state of Paraná, according to Paraná Turismo (2016). These regions are tourism-inducing destinations in the state. Since they have unique territorial characteristics and specific tourism segments, these regions are considered key to develop tourism in the state, attract tourists, and disseminate tourism at national and international levels (Paraná Turismo, 2016).

The analysis of Table 2 shows that the great majority of municipalities are rated as "D" (41 representatives). This level of the hierarchy does not represent an outstanding rating in the policy of regionalization of tourism. However, since they are the largest number of representatives, it is interesting that the state and municipalities look for a way of verifying the potential of these representatives. By working together, these municipalities can develop towards a common improvement goal.

Considering the level of tourist representation, a table (Table 3) was elaborated with the percentages of each level of hierarchy, in order to qualitatively justify the responses relevant to the understanding of the concept of smart tourism destinations. This table allowed the authors to verify how, and in what way the classification of the municipalities can influence the evolution of the destination to a smart tourism destination.

Table 3 - Level of hierarchy

CATEGORY AND NUMBER OF MUNICIPALITIES	TOTAL PERCENTAGE (224 MUNICIPALITIES)	CATEGORY AND NUMBER OF MUNICIPALITIES	PERCENTAGES IN RELATION TO THE RESPONSES OBTAINED (76)
A (2)	0.893 %	**A (2)**	100 %
B (9)	4.02 %	**B (9)**	100 %
C (31)	13.8 %	**C (13)**	41.9 %
D (138)	61.6 %	**D (41)**	29.7 %
E (44)	19.6 %	**E (13)**	29.5 %

Source: The authors

By analyzing in which category (Table 3) – within the hierarchy – the respondent municipalities fit, we noticed that, through qualitative inferences paired with the theoretical discussion presented in this article, the higher the hierarchical position of the municipality (in which "A" is the highest level and "E" the lowest), the greater the understanding of the importance of the concept of smart tourism destination. The representation of percentages, compared with the number of municipalities per region, can be considered satisfactory, since, according to the total number of municipalities, we collected all the answers of the representatives of higher levels in the hierarchy. This commitment by the municipalities, mainly from those of higher ranks, reflects the interest in modernizing and monitoring trends in the tourist market. That is, these municipalities understand the importance of aspiring to a higher level in

relation to their current situation, thus strengthening tourism in the state as a whole.

This statement can be considered a reflection of how tourism policies have been developed in each of the municipalities. If we take as a basis the operationalization of the processes and the infrastructure of a model smart tourism destination, we will see that the potential for evolution is higher in the A municipalities than in the E ones.

The data analysis presented in Table 3 does not intend to criticize the development of tourism in the municipalities. On the contrary, it is expected that the results of this research will help developing the municipalities. Through these statements, it is possible to establish a parallel between the hierarchy dynamics and the evolution from a traditional destination to a smart destination.

Through the assessment of Paraná's hierarchy report and Table 3, as well as the appraisal of the eleven best ranked municipalities, it was noted that the infrastructure of these municipalities has potential. Such potential, although latent, refers to the capacity of the space to adapt to the dynamics and processes found in a smart tourism destination. Example of such processes and dynamics are the application of ICTs, the sensing of spaces, camera monitoring, and data collection on the city (Biz, 2009; Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016).

This approximation between the hierarchy and the concept of smart tourism destination can be seen as a new point in the life cycle of a destination, as proposed by Butler (1980). Such life cycle consists of a destination evolving to its maximum potential and declining or reinventing itself. The destination then becomes a smart tourism destination through technology, sustainable dynamics, and creative solutions.

In the first section of the questionnaire, "Concept Assessment", it is possible to observe that municipalities positively assess the concept of smart tourist destinations. This is clear through the analysis of Graphic 1. Approximately 90% of municipalities showed good acceptance of the concept as a reference for management. It is important to emphasize that there was an introduction to the questionnaire, which presented the concept of smart tourism destination according to AENOR/SEGITTUR, so the municipalities used this presentation to base their answers.

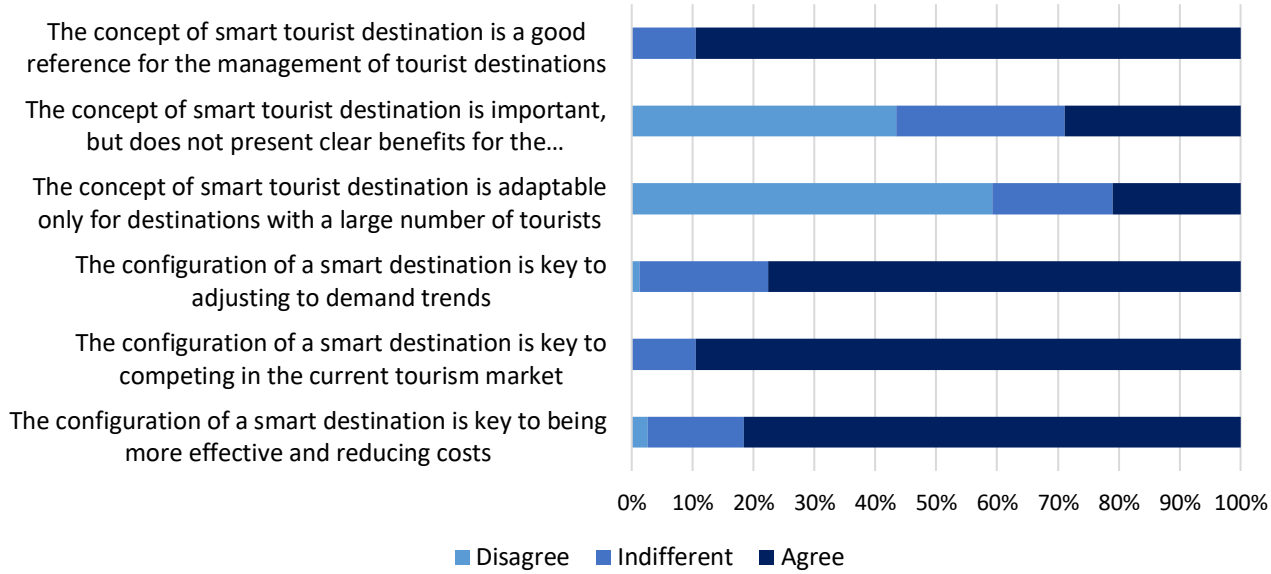
The other variables, related to the benefits and the adaptation process that come with the concept, presented well-divided answers regarding the benefits to the destinations.

Despite concerns about applicability, the percentage of acceptance of the adaptation to the concept as key to fit the trends (78%) also shows to be high on the part of municipalities, which reveals the managers' concern to accompany the evolution of tourism based on new technologies.

Also, in Graphic 1, it is possible to observe that the configuration of a smart destination for market competitiveness and cost efficiency were variables with respectively 89% and 82% of relevance to municipalities. Thus, adapting to the concept is a fundamental aspect to market competition, in addition to providing

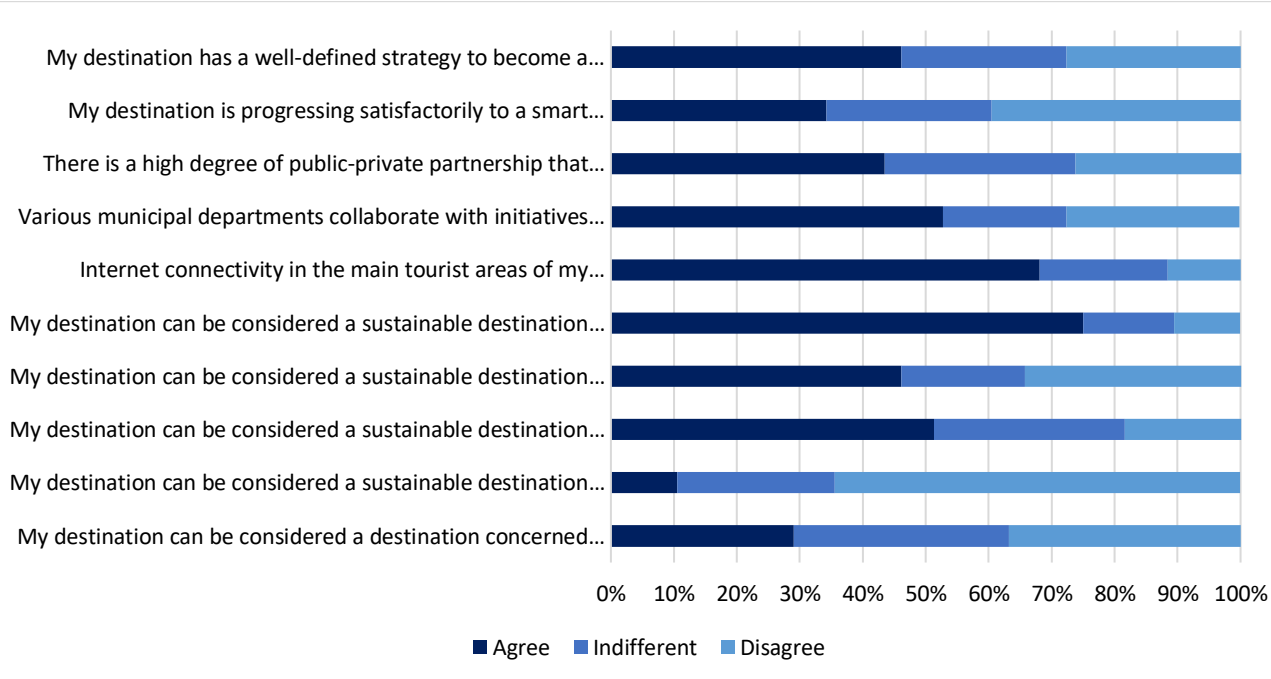
information for reducing costs by public management. The internalization of these variables allows municipalities to better focus their efforts and resources to adapt to the competitive landscape of the tourism market.

Graphic 1 – Concept assessment



Source: The authors

Graphic 2 - Current Situation



Source: The authors

In the second section of the questionnaire, "Current Situation" (Graphic 2), municipalities were asked to demonstrate their current state in relation to some variables. These variables are observable considering the level of development of certain aspects, such as private/public partnership, waste management, urban mobility, etc.

In general, the current situation of municipalities in relation to strategies for becoming a smart destination is still low, since there is a significant disagreement (46%) about the existence of such a strategy.

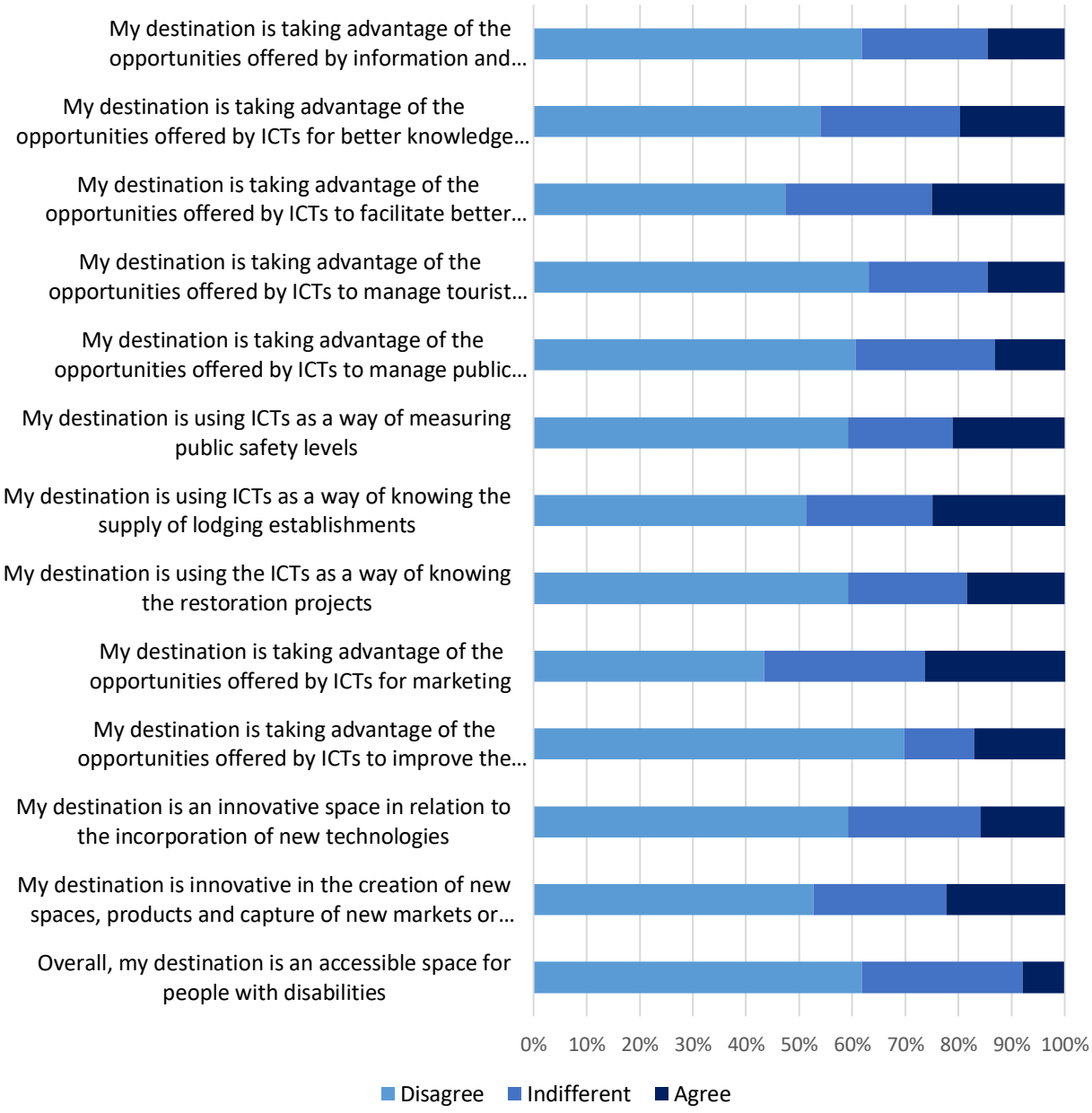
However, in the second variable of Graphic 2, it is possible to observe that the destinations, although not having a well-defined strategy, present a continuous development (40%). There is still development because, although there is no planned strategy, some isolated actions – which are related to tourism, policies, or even basic infrastructure – contribute to the adaptation of the destination to the reality of smart tourism destinations.

Within the current situation of the municipalities, it is possible to note that in many aspects there is still a high level of disagreement. However, it is necessary to consider that the concept of smart tourism destination and the actions that permeate it are still a novelty, considering the Brazilian context when compared to European countries – especially because the term was coined considering the European context (Buhalis & Amaranggana, 2014; Ivars-Baidal, Solsona-Monzonís & Giner-Sánchez, 2016).

Despite the high percentage of disagreement, one of the indicators differs from the analysis of the figure. This aspect is related to the sustainability and conservation of natural resources, which presents a 64% concordance rate. This fact is due to the great concern on the part of the municipalities of Paraná about sustainability issues. Such premise – along with governance - composes one of the structuring axes highlighted in Paraná Turístico 2026 (Tourism in Paraná 2026).

The second section of the questionnaire (Graphic 3) assesses how the destinations of Paraná make use of ICTs for tourism management. This subsection enabled the perception of a great disagreement/non-use of the potential of ICTs in the field of tourism destination management. None of the indicators presented significant agreement - positive positioning - regarding the use of these technologies.

Graphic 3 - Use of ICTs



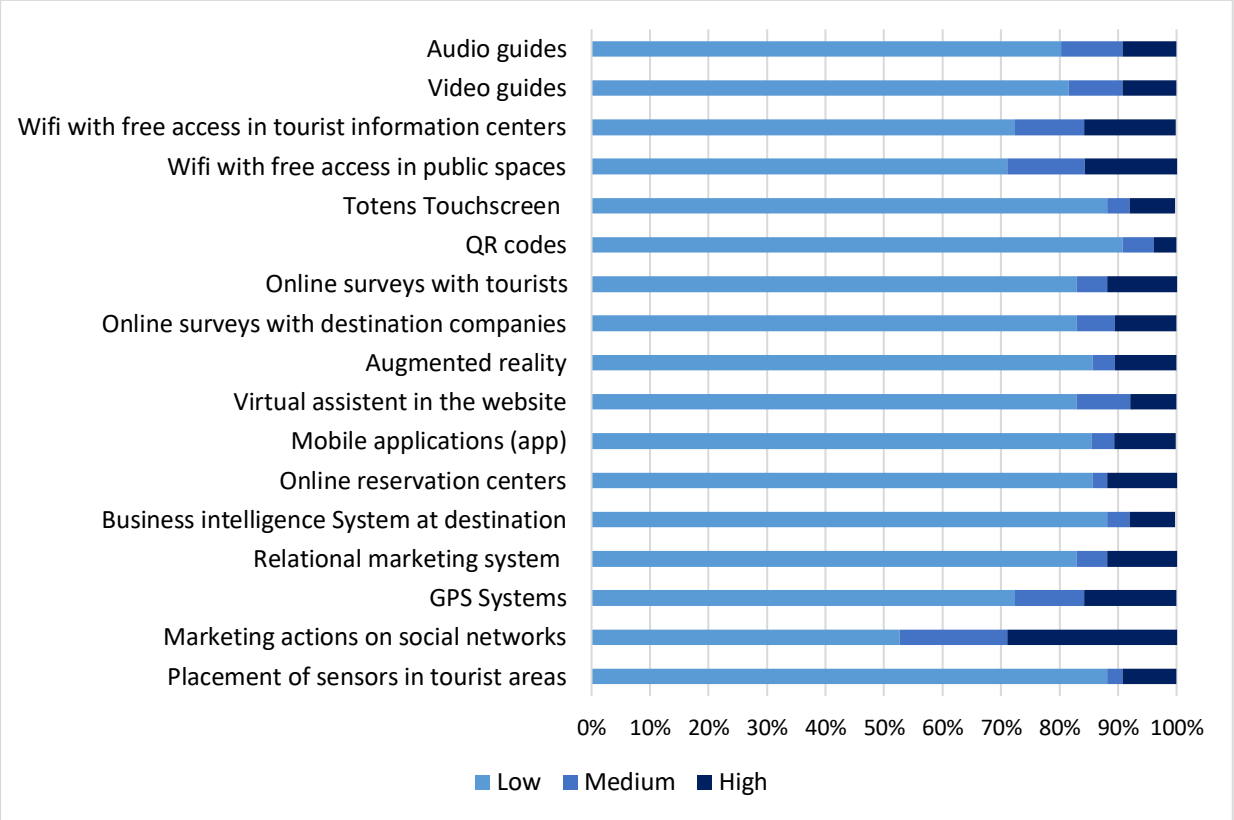
Source: The authors

The most significant response was the use of ICTs for destination marketing (26%) due to the convenience of tourism promotion through social networks and other digital media (Buhalis & Amaranggana, 2013). Another factor that can be highlighted is accessibility in municipalities. The dissatisfaction level regarding accessibility for people with disabilities is 62%. Considering the *Perfil do Turista da Pessoa com Deficiência* study (Tourist Profile of the Disabled Person - 2013), conducted by the Ministry of Tourism and the Department of Human Rights, this issue presents itself as an obstacle to be overcome by the municipalities. To mitigate this deficit Santos,

Souza Neto, Pereira, Gândara and Silva (2016: 22) suggest "[...] the implementation of local urban accessibility plans, with the objective of minimizing the situations of barriers encountered [...]".

According to Celdrán-Bernabeu, Mazón-López, Giner-Sánchez, and Ivars-Baidal (2016), the use of big data is the way in which municipalities, even those without a significant use of technology, can find opportunities for development. Access to information and the possibility of knowledge exchange, which are facilitated by this tool, are good options for a better management of municipalities. Thus, it is possible to expand in terms of activity of the municipal bodies in the possible development of a smart tourism destination.

Graphic 4 - Use of technologies and new process management and marketing



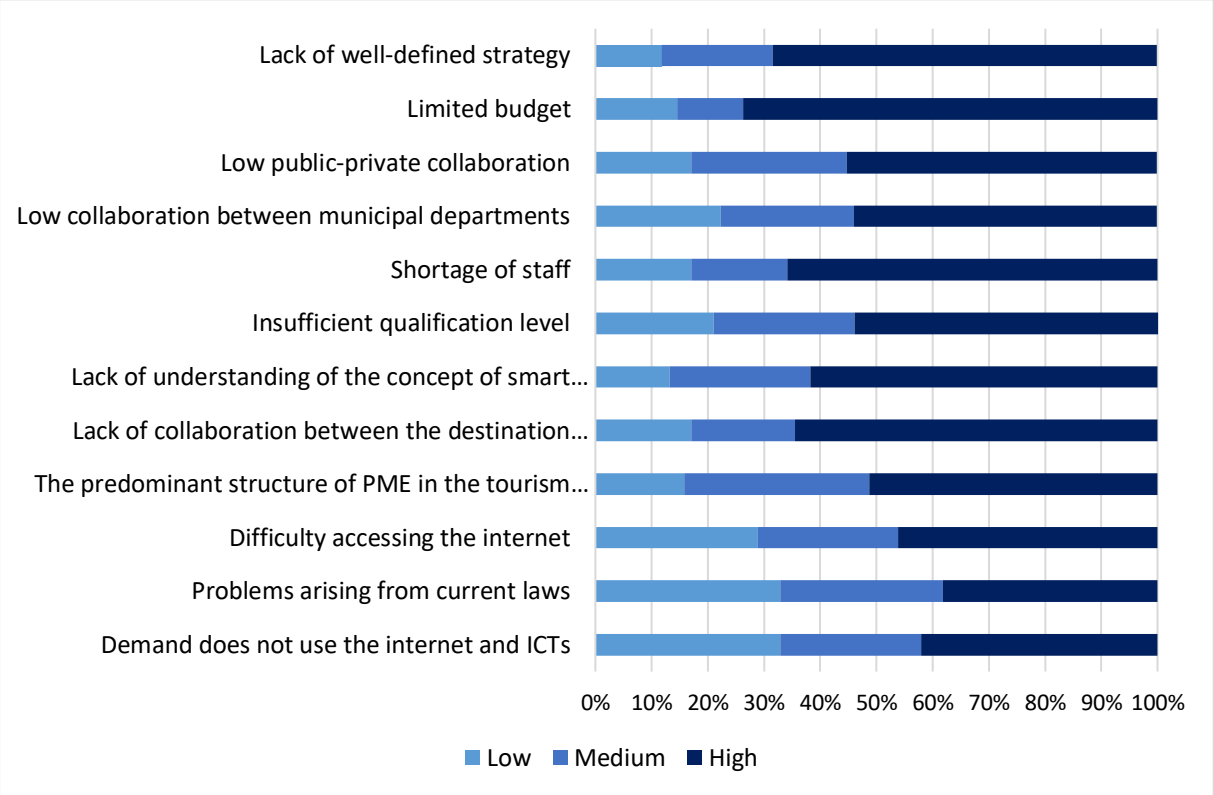
Source: The authors

In the third and last section of the questionnaire, entitled "use of technology and new processes" (Graphic 4), the municipalities were asked to indicate the impact of certain technologies upon management, and whether some of these technologies are used in the destination.

In Graphic 5, it is possible to observe that most of the municipalities neither use such technologies nor adopt new processes for management. The non-use/impact rate is high on most indicators. However, one of the indicators – marketing actions in social networks – stands out (29% of use). As it was already pointed out, such networks can be easily used for promotion due to their free and easy access (Thomaz, Biz, Bettoni & Pavan, 2015). Thus, the variable stands out,

considering the context shown in this section, which is mostly negative (low-impact).

Graphic 5 - Barriers to becoming a smart tourist destination

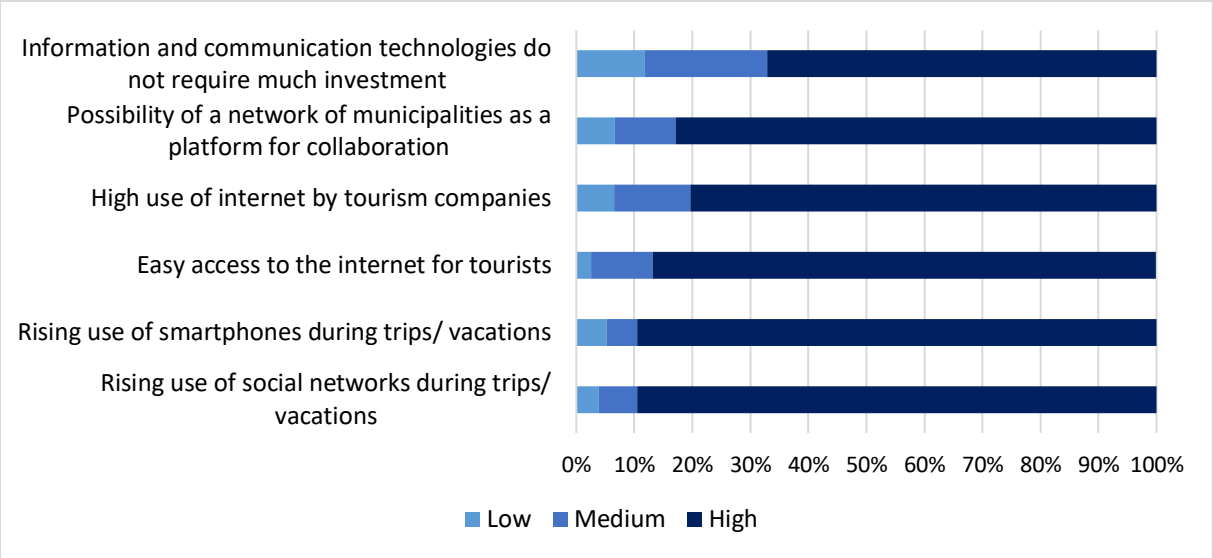


Source: The authors

In this subsection (Graphic 5), destinations informed the barriers they faced to move towards becoming a smart tourism destination. As a diagnosis of the current situation, one of the most representative indicators is the lack of a well-defined strategy (68%), which consists of a high impact barrier to the evolution of the destination. The second barrier that municipalities face is their limited budget (74%). This barrier may be based on the budget laws of the municipality, or even considering the transfer of funds for tourism.

The barriers listed in this study are numerous, but it is possible to observe them as a diagnosis. It is interesting, then, to seek measures to mitigate such barriers, providing information for future partnerships and action plans in relation to the management of the municipality.

Graphic 6 - Opportunities to become a smart tourist destination



Source: The authors

The last subsection (Graphic 6), which relates to the third part of the questionnaire, concerns the opportunities, and/or benefits that municipalities can take advantage of to become a smart tourism destination. In this subsection, the results were mostly high – considering the positive aspect of the issues.

The municipalities understand many of the indicators as possible actions to improve management, and thus to be able to reach the level of smart tourism destinations. Among the variables highlighted in Graphic 6 "the growing use of smartphones during travel/holiday" and "increasing use of social networks during travel/holiday" both appear with 90% approval as opportunities for a destination. Drawing on strategies involving this identified opportunity, destinations can begin to improve strategies for better management and to achieve visibility as smart tourism destinations.

The analysis of the open-ended question (table 3), with the proposals of actions of the municipalities for the evolution from a regular destination to a smart tourism destination, showed that there is still a great concern on the part of the municipalities with basic management matters (budget, infrastructure, training etc.). However, it was possible to identify some important concerns in the construction of a process of changes for a smart destination. Below, in table 3, we can see some of the proposed actions that go beyond the basics aspects.

These propositions go against what Femenia-Serra and Perea-Medina (2016) found in their studies in Spain about the possibility of evolution from a regular destination to a smart tourism destination. Although the realities are disparate and, at first, distant, it is possible to approximate them. The analysis of the potential of the municipalities through the open questions showed that concerns in management and planning resemble those of the Spanish cities, regarding the development of a smart tourism destination. The most frequent answers were summarized and grouped

according to the parameters of Plano Paraná Turístico 2026. Thus, Chapter 1 was elaborated in order to show the answers provided by the municipalities.

Chapter 1 - Strategic priorities and proposals

Governance and sustainability	✓ Planning ✓ Partnerships ✓ Funding ✓ Investment ✓ Awareness ✓ Governance ✓ Modernization of the management
Quality and competitiveness	✓ Innovation and competitiveness ✓ Qualification of the Attractions ✓ Training ✓ Wi-fi availability ✓ Entrepreneurship ✓ Use of ICTs
Marketing and innovation	✓ New technologies ✓ Communication
Intelligence and use of ICTs	✓ Research ✓ Tourist Observatories ✓ Knowledge
Regulations and quality of life of the local population	✓ Legislation ✓ Quality of life ✓ Accessibility

Source: The authors

It can be concluded from Chapter 1 and the figures presented that the answers given by the municipalities about the concepts and about the current situation and the use of new technologies come together for an understanding of what a smart tourism destination is. In addition, it was possible to observe through the suggestions proposed (Table 4) that the municipalities are inclined to contribute to the improvement of their management, even without a clear objective of becoming a smart tourism destination.

Through the analysis of the answers provided by the municipalities to the open question (Table 4), it is possible to infer that there is a common ground in the proposals: the budget policies (planning and financing).

Plenty of respondents showed dissatisfaction with or suggestions regarding the allocated tourism budget. Many proposals made by the municipalities emphasized the need for further funding in order to improve the development of tourism in the destination. Considering that a smart tourism destination needs quality infrastructure to meet the needs of tourists and residents, the budget issue is a relevant point to be highlighted.

However, budget alone is not enough for the evolution of a destination into a smart tourism destination. One cannot restrict the concept of a smart tourism destination to

infrastructure. Municipalities have also highlighted proposals which involve cooperation networks, population awareness, entrepreneurship, and training. These initiatives are the first step for many of the municipalities towards starting the implementation of the smart tourism destination concept.

These suggested proposals are included in the "Paraná Turístico 2026 – Pacto para um Destino Inteligente" plan (Tourism in Paraná 2026 – Pact for a Smart Destination), since the strategic priorities (Figure 3) defined by Paraná Tourism in its plan comprise such initiatives. In view of the vision of the future envisaged by the plan, which can be seen in Figure 3, the pact stems from the aspects of intelligence and use of ICTs, from regulatory frameworks, and from the quality of life of the local population. These aspects will serve as the basis for the construction of features related to governance, sustainability, quality, competitiveness, marketing, and innovation in the search for the construction of the state of Paraná as a smart tourism destination.

Figure 3 - Vision for the future and strategic priorities

Source: Paraná Turismo (2016)

Observing all the answers along with a more comprehensive analysis, one realizes that there is a recurrent margin for improvement within management. The limiting factors are similar in all responses, in which planning and lack of budget are perceived as the main obstacles to the advancement of many municipalities. However, through the analyses, it is possible to note that there is a desire to modernize, provided there is a strategy focused on continuous evolution and which considers the particularities of each municipality.

This line of thinking is one of the ways in which the concept of smart tourism destinations can and should be

operationalized. In order to achieve satisfactory development, it is necessary to consider where you can move forward with the concept within a destination while respecting its own particularities (Ivars-Baidal, Celdrán-Bernabeu, Mazón-Lopes & Perles-Ivars, 2017).

The responses indicated that the 76 municipalities are committed to promoting tourism, though the major concern is to achieve a stable plateau within the rules set in the state policy hierarchy.

Ivars-Baidal, Celdrán-Bernabeu, Mazón-Lopes, and Perles-Ivars (2017) emphasize the importance of tourism development within the technological paradigm. According to the authors, ICTs are great allies in the management of a destination, making it a favorable environment for the dissemination of the concept of smart tourism destination. Management then becomes a process facilitated by new technologies, which in turn, need to be assimilated by the environment as a way of establishing a viable infrastructure for smart management.

Through data analysis and the theoretical framework, it was noticed that the opinions of the tourist destinations in the state of Paraná are still under the viewpoint of management. The general awareness is indeed related to development policies concerning short-term impact.

One of the characteristics of smart tourism destinations is precisely data collection – a process which may take time – in order to maximize the positive impacts of long-term management. Based on the data, on what has been addressed in the discussions which supported this article, and on the claims made by Luque-Gil, Zayas-Fernández and Caro Herrero (2015), the creation of a tourism observatory project for regions, destinations, or products, is suggested to stimulate the development of the concept and to facilitate the management of the public through smart tourism destinations. This model is already applied in certain localities in Spain, a country known for its smart tourist destinations. The creation of tourism observatory projects or initiatives, such as workshops, would facilitate the dissemination, understanding, and practical application of the concept.

By uniting efforts, it is possible to develop a *territorial intelligence* — based on geographical, systemic, communication, and computer aspects — which can articulate a strategy which contributes to the development of these municipalities (Luque-Gil, Zayas-Fernández& Caro Herrero, 2015). The creation of a tourism observatory project would facilitate the gathering of information/data and their conversion into knowledge. This would provide an integration between municipalities and regions, facilitating the exchange of experience regarding their development into smart tourism destinations. It would also allow the public initiative and private companies to make decisions based on knowledge that generates greater possibilities of success.

From these analyses, it can be asserted that there is still a disparity between the current situation and the development of smart tourism destinations. However, this current "barrier" can be considered a long-

term opportunity, in which policies can be expanded, directed, and adapted in order to increase investment for the development of destinations. This may become reality with the joint participation of destinations in a tourism observatory project, or joint initiatives with a similar purpose. The creation of one or more pilot destinations can be established in the state of Paraná with the combination of public and private initiatives, aiming to replicate existing models and adapting them to the Brazilian context.

6 CONCLUSION

The smart tourism destinations research field becomes very broad when one understands that a destination goes far beyond what can be seen or purchased. There are many assertions and perceptions which permeate both concepts. However, the minimal understanding of what each one of these concepts means is enough to change the thinking of company/destination managers.

The present article examined the question of what is a smart tourism destination in order to understand how the concept is or is being developed by tourist municipalities in the state of Paraná.

Considering the current management of these municipalities, the present work provided an overview of what is known and what can be improved in relation to the concept of smart tourism destinations. This study did not intend to criticize the theoretical or even practical initiatives occurring in the destinations researched.

For this reason, the present article contributes to the theory of smart tourism destinations in relation to the Brazilian context. Although this research encompasses only a small part of such a vast universe, we hope to contribute to the understanding and operationalization of the concept, clarifying its potential and limitations, which were observed in the analyses.

This research also reveals that there is opportunity for joint work between government and private initiatives. As stated by Santos, Souza Neto, Pereira, Gândara, and Silva (2016), such studies allow for the creation of multiple indicators for the improvement of a destination, using the principle of "intelligence" in order to facilitate changes and projects in tourism in municipalities of Paraná.

With the contribution of the theoretical framework – primarily focused on the European (Spanish) context – it was observed that the contexts both in operationalization and in the understanding of the concept of smart tourism destinations are still distant. However, this comparison allows for the understanding that the concept is flexible. Therefore, its application must adapt to reality, thus avoiding proposing idealistic objectives and goals.

The analyses performed in this article also revealed that becoming a short-term smart tourism destination is not the focus of the municipalities. The process of evolution from the understanding of the concept to the devising of proposals is something that must be respected. Faced with a reality in which many of the municipalities still plead for basic tourism services, the dissemination of the concept of smart tourism destinations seems

to be unattainable. Yet it is in the face of this reality that state and municipal projects must support each other, for being and becoming smart is not synonymous with mastery over state-of-the-art technology, or even over big data filled with information – which often do not transform into knowledge. Being smart is about focusing on finding innovative solutions to old problems, improving a process, removing the red tape, but above all, shaping up and respecting the reality that is present. Otherwise, much effort and money will be employed and the results will ultimately not be noticed.

Finally, it is understood that the overview presented brought smart tourism destination theory closer to reality, allowing us to verify how the concept can be applied – and subsequently spread – to other locations. Even though the current focus of the negotiations is not on becoming a smart tourism destination, the diffusion of this mindset is already the first step for the initiatives to bear fruits in awakening administrators to this new imposing reality.

Therefore, it can be asserted that the municipalities in the state of Paraná comprehend the concept of smart tourism destinations, and see advantages in its application. However, this idea needs to be perpetrated either through local workshops, global projects involving public and private initiatives, or even mixed-economy entities, so that smart tourism destinations do not simply remain as concepts, but become reality instead.

As a suggestion, the replication of this study in the near future is advisable in order to validate it and to establish comparisons with other contexts. Moreover, increasing the number of municipalities or even performing this study in different states would allow for a dynamic and multifaceted perspective on smart tourism destinations on a broader level. As a limitation of the research presented in this study, we point out the high sample error (9%). It is therefore not possible to generalize the results. However, we stress the relevance of the number of responses, as previously highlighted, since the importance and representativeness of the respondents contribute to the understanding of how the concept of smart tourism destinations is perceived.

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